

Having described the invention, the following is claimed:

1. Apparatus comprising:

first and second spaced contacts;

a rocking contact having first and second arms in electrical contact with each other, said rocking contact being supported for rocking movement in opposite first and second directions, said first arm moving into engagement with said first contact when said rocking contact rocks in said first direction, said second arm moving into engagement with said second contact when said rocking contact rocks in said second direction; and

an actuator pivotable to effectuate rocking movement of said rocking contact in said first and second directions;

said first and second contacts each comprising a terminal for helping to mount said apparatus, said terminals each comprising a compliant pin connector.

2. The apparatus recited in claim 1, further comprising a third contact maintained in continuous engagement with said rocking contact, said rocking contact providing electrical contact between said first

and third contacts when said first arm moves into engagement with said first contact, said rocking contact providing electrical contact between said second and third contacts when said second arm moves into engagement with said second contact, said third contact comprising a terminal for helping to mount said apparatus, said terminal comprising a compliant pin connector.

3.. The apparatus recited in claim 2, further comprising a base for supporting said rocking contact, said actuator, and said first, second, and third contacts, said terminals of said first, second, and third contacts protruding from a lower surface of said base.

4. The apparatus recited in claim 2, wherein said compliant pin portions are insertable into a through-hole of a circuit board, said through-hole having a plated side wall, each of said compliant pin portions comprising spaced deflectable beam portions having outer surfaces spaced apart a distance greater than the spacing of the opposing surfaces of the side wall, said beam portions engaging the side wall and deflecting toward each other and thus providing a frictional engagement between said beam portions and the side wall when said compliant pin

portion is inserted in the through-hole, the frictional engagement providing a retention force for retaining said compliant pin portion in the through-hole and thereby helping to connect said apparatus to the circuit board.

5. The apparatus recited in claim 4, wherein said compliant pin portion further comprises an opening extending through said compliant pin portion and defining curved inner surfaces of said beam portions opposite said outer surfaces, said inner surfaces being presented facing each other.

6. The apparatus recited in claim 4, wherein portions of said outer surfaces of said beam portions define central interface portions of each of said beam portions, each of said interface portions including an interface surface formed on said outer surfaces of said beam portions and facing away from each other.

7. The apparatus recited in claim 6, wherein said interface surfaces provide said frictional engagement with the side wall of the through-hole.

8. The apparatus recited in claim 4, wherein said apparatus is free from means for connecting said apparatus to said printed circuit board other than said compliant pin connectors.

9. The apparatus recited in claim 4, wherein said compliant pin connectors provide a solderless and adhesive-free connection between said apparatus and said printed circuit board.

10. The apparatus recited in claim 1, wherein said apparatus comprises a rocker switch.

11. The apparatus recited in claim 1, further comprising:

third and fourth spaced contacts; and  
a second rocking contact having third and fourth arms in electrical contact with each other, said second rocking contact being supported for rocking movement in opposite first and second directions, said third arm moving into engagement with said third contact when said second rocking contact rocks in said first direction, said fourth arm moving into engagement with

said fourth contact when said second rocking contact rocks in said second direction;

said actuator being pivotable to effectuate rocking movement of said second rocking contact in said first and second directions, said third and fourth contacts each comprising a terminal for helping to mount said apparatus, said terminals each comprising a compliant pin connector.

12. The apparatus recited in claim 11, further comprising a fifth contact maintained in continuous engagement with said rocking contact and a sixth contact maintained in continuous engagement with said second rocking contact;

said rocking contact providing electrical contact between said first and fifth contacts when said first arm moves into engagement with said first contact, said rocking contact providing electrical contact between said second and fifth contacts when said second arm moves into engagement with said second contact, said fifth contact comprising a terminal for helping to mount said apparatus, said terminal comprising a compliant pin connector;

said second rocking contact providing electrical contact between said third and sixth contacts when said third arm moves into engagement with said third contact, said second rocking contact providing electrical contact between said fourth and sixth contacts when said fourth arm moves into engagement with said fourth contact, said sixth contact comprising a terminal for helping to mount said apparatus, said terminal comprising a compliant pin connector.

13. Apparatus comprising

an electric vehicle window motor operable in first and second rotational directions;

a printed circuit board for delivering electrical signals to the electric motor to cause the electric motor to rotate in the first and second rotational directions;

a rocker switch operable to switch electrical signals to the electric motor via the printed circuit board; and

means for connecting the rocker switch to the printed circuit board, said means consisting essentially of compliant pin connectors of the rocker switch.